SPECIAL HANDLING





SHC62-8214-248

Copy # 2

August 16, 1962

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Dear [redacted]

As a result of the meeting held with your technical representatives, [redacted] on 8 August 1962 [redacted] has requested that I confirm, through contractual channels, the questions which were presented at this meeting. I feel that definitive answers to these questions are essential in order to determine certain parameters essential to design and fabrication of the Gamma I and Gamma II Rectifying Printers.

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The following three groups of questions, I believe, cover our information need for this program at this time.

1. Since easel curvature recreates the earth's surface in map scale, its shape is primarily dependent on flight altitude. Two sources of information on the altitudes of the Gamma I input have provided values which have disagreed significantly. The rectification theory is not influenced by flight altitude, but the focusing function of the lens, the easel tilt, lens field, and lens tilt are influenced.

1. What is the mean altitude of the 24" tipped missions to date?
2. What is the plus, minus variance from the mean?
3. What will be the altitude of future missions?
4. Is the nominal flight altitude for the Gamma II (36" focal length) input the same as for the Gamma I?
5. What is the expected variance?

2. For the 24" system there are 10 scan cycle steps for 10 settings of V/H. These are known to us and we can determine the residual geometric distortion.

1. What is the scan cycle rate for the 36" system? Usually expressed as seconds per 360° cycle or radians/sec.

3. Format and Film Data - 1. Is the film of the 36" system exactly 6.600 inches wide? 2. Verify format width of 6.300 inches.

3. Where is the format located with respect to film edges? Sometimes it is offset a small amount.

4. Where is the data block?

If at all possible, would you exert your best efforts to supply us with this information as soon as possible.

[redacted]

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HAM:mk

25X1 Ref Letter communications [redacted] #SHC62-8214-248 dtd. 16 August 62. [redacted] 25X1
Answers to questions pertinent to performance of contract [redacted] 25X1
Task 5, Gamma I and Gamma II Rectifying printers.

Para 1 - question #1

Record of first four flights --

1st flt. - Minimum alt. planned 113.7, actual 116.3 NM.
Maximum alt. planned 127.7, actual 129.2

2nd flt. - Min alt. planned 113.5, actual 101.9
Max alt. planned 124.0, actual 136.0

3rd flt. - Min alt. planned 115.4, actual 109.7
Max alt. planned 124.0, actual 141.4

4th flt. - Min alt. planned 111.6, actual 111.1
Max alt planned 122.1, actual 127.8

question #2 -- Variable as can be seen from altitude data noted from para 1, question #1.

question #3-- Unknown but most probably be same as presently.

question #4 & 5 -- Nominal average orbital altitude for Gamma II (36" FL) 123 NM. Most likely it will undergo some variations as Gamma I.

Para 2 - question #1 -- Imc, 15 steps
#1 has cycle time of 5.49 sec for 132.8 NM alt.
#4 has cycle time of 5.02 secs for 122.1 NM alt.
#15 has cycle time of 3.63 secs for 89.4 NM alt.
More data later.

Para 3 - question #1: Film is 6.6 in. wide with usual plus 0.010" minus 0.005".

question #2: Foremat width is 6.100" plus or minus 0.005"

question #3: Format is centered.

question #4: Datablock is along edge of film beginning 0.125 in from edge of film and extending 0.1875 in, terminating 0.0575 from foremat edge.

NPIC ROUTING SLIP

FROM: [redacted]

DATE: 13 Sept 62

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REMARKS:



NPIC-FM30(REV 6-62)

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